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AUTHOR Preul, Karen; Dewitz, Peter
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ABSTRACT

A study compared the relative effectiveness of a direct instruction method for finding the main idea in a text with a method that combined direct instruction with a checklist that encouraged the students to monitor their application of the main idea strategy. Subjects, 56 fifth-graders at a suburban elementary school, were divided into one of three special reading groups: a self-monitoring strategy group (direct instruction plus self-monitoring checklist), an alternate strategy group (direct instruction without the checklist), and a control group. Instructional materials for the two strategy groups consisted of passages with either explicit or implicit main ideas selected from two skill development series, while those for the control group were taken from basal readers. Instruction took place over a four-week period, with 33 of the students being interviewed after 11 days. Students completed pretests and posttests using material from the same sources as well as from a text not covered in class. Test results indicated that the self-monitoring group performed significantly better than the alternate strategy group and the control group. Interview results suggested that the students in the two experimental groups had a clearer idea about what they learned than did the control students. The study results suggest that students can be trained to improve their comprehension of main idea using a strategy that combines direct instruction with a self-monitoring checklist. (HTH)

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KAREN PREUL
PETER DEWITZ
The University of Toledo

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The Effectiveness of a Self-Monitoring Strategy for Teaching Main Idea Comprehension

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The Effectiveness of a Self-Monitoring Strategy for Teaching Main Idea Comprehension

There is much research to date regarding main idea comprehension and several strategies have been suggested for teaching this skill (Baumann, 1984; Dishner & Readence, 1977; Pearson & Johnson, 1978; Taylor & Williams, 1983; William, Taylor & Granger, 1981). Most research on main idea instruction has dealt with small contrived pieces of text, rather than the natural text which students encounter daily, in and out of school. There is still doubt whether these strategies will insure transfer of the skill to content area reading material and to other natural texts.

The most effective procedures for teaching students to find the main idea have been based on the paradigm of direct instruction (Baumann, 1984; Roehler & Duffy, 1984). Direct instruction in comprehension strategies embodies a series of steps that moves the learner from dependence on the teacher to independence in the application of the strategy. The teacher typically begins by identifying the skill and explaining its purpose to the students. Next the teacher models and demonstrates the strategy trying to illuminate their mental processes for the students. Gradually the responsibility and the activity is shifted to the students. They try out the strategy and the teacher provides support by asking questions and reminding them of the procedure. Through questions the teacher can assess the students' understanding of the strategy. Finally, when the teacher determines that the students have learned the strategy they are given an opportunity for independent practice.

Baumann (1984) used the principles of direct instruction to teach main idea comprehension. He arranged the instructional materials in a strict heirarchy beginning with paragraphs that had explicit main idea statements, then introducing paragraphs with implicit main ideas and finally mixing the two paragraph types together. This sequence was again repeated when the students were taught to find the main idea of extended passages. Baumann was able to improve main idea comprehension when the task was similar to the instructional procedures, but he was less successful in achieving far transfer on novel tasks such as free recall. Two problems may be noted in Baumann's procedures. First, Baumann neglected to stress the importance of the reader's prior knowledge. The main idea can be determined by the inspection of the information in the text and by consulting what you already know. "As readers gain experience with various text types and develop background knowledge about various topics, they develop the ability to differentiate the salient information from the less salient information" (Winograd & Bridge, 1986, p. 25). Second, Baumann did not give the readers a means of monitoring and checking their application of the strategy.

The present study is both a replication and an extension of Baumann's (1984) work. The purpose was to compare the relative effectiveness of a direct instruction method for teaching the main idea (Baumann, 1984) to a method of instruction that combined direct instruction with a checklist that encouraged the students to monitor their application of the main idea strategy. Baumann's (1984) study provided a logical sequence for teaching main idea comprehension. The lessons in Baumann's research stress the direct explanation of the structure of a paragraph, the

hierarchical relationship between the main idea and details, but the students are not given an explicit procedure directing them to locate or create a main idea or showing them how to monitor their use of the procedure.

To augment the instruction in Baumann's approach, a new instructional strategy was created that combined direct instruction with a checklist that guided the students through a series of steps to locate or invent the main idea. The checklist was designed to make the process explicit and to help students apply it to any reading text. The checklist further trained students to self-monitor their main idea comprehension by applying tests to determine the appropriateness of their responses. Research by Brown, Day and Campione (1981) supports the idea that if students are trained to monitor a strategy it is more likely they will transfer the skill to new text.

[Insert Figure 1 about here]

Each step of the self-monitoring checklist was developed to provide students with a self-questioning and self-checking strategy to find or invent the main idea of any text. Questions posed in Step 1 and 2 prompt each student to make a prediction about the main idea based on the title and the reader's prior knowledge.

After the initial self-questioning the students are instructed to read the paragraph or passage. It is during this time that the student may either accept, reject, or modify his/her prediction and determine if his/her prior knowledge is appropriate to the text. The self-questioning resumes in Step 4 when the student is asked: Are there any textual clues

that will help you find the main idea? At this point the student reanalyzes the textual features to determine whether or not the author has directed him/her to the main idea. Next, the student is to write what he/she thinks is the main idea followed by supporting details. The final step is the self-checking phase of the checklist. The student must check his/her response against the text. The task is to determine where in the text the student located the main idea, or acknowledge that he/she had to "invent" the main idea based on his/her reading. At each step of the checklist strategy the student is actively involved in the comprehension process.

In the present study the direct instruction which has been enhanced with the use of the checklist will be compared to direct instruction without the checklist. The students in the control group will receive main idea comprehension instruction from their basal reader.

Method

Subjects

Fifty-six fifth graders at a suburban elementary school participated in the study. The students were randomly assigned to one of three special reading groups; a Self-monitoring Strategy Group, an Alternate Strategy Group and a Control Group. Reading ability for each group was determined using the comprehension subtest of the Gates-MacGinitie Reading Test, Form D (MacGinitie, 1978) with the following results: Self-monitoring Strategy Group (M = 52 percentile), Alternate Strategy Group (M = 56 percentile), Control Group (M = 52 percentile).

Materials

Instructional materials used by the Self-monitoring Strategy Group and the Alternate Strategy Group consisted of paragraphs and passages with either explicit or implicit main ideas selected from SPECIFIC SKILLS SERIES, Finding the Main Idea, Level E and F (Boning, 1976), and DEVELOPING READING COMPREHENSION SKILLS, Finding the Main Idea, Levels E and F (Beiger, Cohen, Brown & Crews, 1980). Additional passages were drawn from the fifth grade social studies and science textbooks for use on the pre- and posttests and the final days of instruction. A passage consisted of three or more related paragraphs.

Students in the Control Group used instructional materials from their basal reader series (Barefoot Island, Level 11, and Ride the Sunrise, Level 12, Ginn, Clymer & Venezky, 1982). Additional worksheets were selected from Getting the Main Idea (Boning, 1976), and a basal reader program (Rough and Ready, Level 5, Scott Foresman and Company, 1985).

The students were administered pre- and post- multiple choice tests constructed by the authors. The tests consisted of ten paragraphs with either explicit or implicit main idea statements and multiple choice responses. The tests also contained four longer passages and the students had to construct a response to the question, "What is the main idea of the passage?" The material for the tests was taken from the same sources as the instructional material. The longer passages came from portions of the social studies text that had not yet been covered in class.

Following the eleven days of instruction, thirty-three students were selected to participate in an interview. The students responded to three questions: 1) What did your learn to do during your special reading time?, 2) Why is finding the main idea important?, and 3) When reading a passage, how do you find the main idea?

Instructional Procedures

The instruction in main idea comprehension took place over a four week span of time. The students met in their special reading class three times a week for approximately 30 minutes each day. The teachers were randomly assigned to the treatment. The lessons in the Self-monitoring Group followed the principles of direct instruction. The teacher first defined the skill and then described its importance and range of applicability. Next the teacher modeled the procedure and demonstrated how to use the checklist to find or invent the main idea. The students were then guided through the procedure in a step-by-step fashion. Appropriate assistance was given to the students and the teacher regularly checked their understanding of the strategy through questioning. The students then tried out the procedure on their own.

For the students in the Self-monitoring Strategy Group this procedure was used first with paragraphs containing explicit main idea statements and then with paragraphs containing implicit main idea statements. Next students applied the strategy to a mixed selection of both paragraph types. The sequence was again repeated with longer passages. Gradually the teacher faded the instructional support and the students worked independently using the checklist to find or invent the main idea. The full instructional sequence is presented in Figure 2.

[Insert Figure 2 about here]

The teacher in the Alternate Strategy Group followed the same sequence as the Self-monitoring Strategy Group and used the same direct instruction paradigm without the aid of the checklist. The teacher explained and modeled the procedure following the same principles of direct instruction and used the same paragraphs and passages for demonstration. The students tried out these procedures with the support of the teacher and eventually the students applied it independently. While the students in the Self-monitoring Strategy Group used the checklist to complete the task, the students in the Alternate Strategy Group selected the main idea from multiple-choice responses or responded in writing to three questions: "What is the main idea of this paragraph or passage?, "Can you recall some details from the paragraph or passage that support the main idea, list them," and "How did you find the main idea of this paragraph or passage.

Students in the Control Group read stories selected from their basal reader program focusing on main idea comprehension. The teacher followed the lesson as outlined in the teacher's manual with an emphasis only on the lesson components intended for main idea instruction. The students completed practice worksheets in conjunction with the story and supplemental materials when time permitted.

Experimental Procedures

The students were pre- and posttested on an alternate form of a main idea comprehension test. The test consisted of paragraphs and passages with explicit and implicit main ideas, employing

both multiple choice and constructed response formats. The transfer task consisted of passages from the students' social studies and science textbooks. Students had to write a main idea statement for each of these passages. Finally at the end of the study students received a brief metacognitive interview. The interview assessed students' knowledge of the strategy, when and how it should be used.

Results

The data were analyzed with a 2 (Reading Ability) by 3 (Treatment) analysis of covariance with the pretest scores as the covariate. The students were tested on both multiple choice and constructed response items. The results are presented in Table 1. For the multiple choice responses there was a significant difference among the three treatment groups $F(2,42) = 2.75$, $p < .05$. The scores indicate that the Self-monitoring group ($M = 7.50$) performed better than the Alternate Strategy Group ($M = 4.97$) and the Control Group ($M = 5.50$). Additionally there was a significant main effect for Reading Ability $F(1,42) = 11.77$, $p < .001$, but no interaction between Reading Ability and Treatment $F(2,42) = .838$, $p > .05$.

[Insert Table 1 about here]

The results for the constructed responses indicate that there was a significant effect for treatment $F(2,42) = 4.64$, $p < .01$. The self-monitoring Group ($M = 7.69$) scored significantly higher than the Alternate Strategy Group ($M = 5.29$) or the Control Group $M = 5.49$). There was no

significant effect for Reading Ability $F(1,42) = 1.76$, $p > .05$, but the interaction between Treatment and Ability was significant $F(2,42) = 8.37$, $p < .001$. The interaction can be largely explained by the performance of the below average readers in the Alternate Strategy Group. These five readers performed significantly lower ($M = 2.00$) than did the below average readers in any of the other two groups.

When the daily seatwork of the three groups was inspected some important differences were noted. The students in the Self-monitoring Group got 62.3% of their work correct, compared to 28.2% correct for the Alternate Strategy Group and 58.5% correct for the Control Group. All of the group had more difficulty with paragraphs and passages that had implicit rather than explicit main ideas.

[Insert Tables 2 and 3 about here]

The results of the post instruction interviews are presented in Tables, 2, 3, and 4. The results suggest that the students in the Self-monitoring Strategy Group and the Alternate Strategy Group have a clearer idea about what they learned than did the students in the Control Group. Eighty-three percent of the Control Group students had only a vague idea about their special reading time (learned how to do reading work) compared to 17% of the students in the Self-monitoring Strategy Group and none of the students in the Alternate Strategy Group. Similar results were revealed when the students were asked why finding the main idea is important. The students in the Control Group believed they would get better grades (not an impractical reason) while the students in the two experimental groups believed finding the main idea would help in comprehension or getting the gist of the passage.

On the last question both experimental groups had a clearer idea of how to find the main idea than did the Control Group.

[Insert Table 4 about here]

Discussion

The results of this study suggest that students can be trained to improve their comprehension of main idea using a strategy that combines direct instruction with a self-monitoring checklist that promotes independent application of the strategy. The students who used the self-monitoring checklist performed better than did the students who received direct instruction without the checklist or the group that was taught from the basal reader. The checklist helped the students on the relatively easy multiple choice task, but proved to be even more valuable when the students had to construct their own main idea statement. Additionally the checklist helped the students to apply the strategy to material typically found in social studies texts.

Direct instruction without the checklist proved to be no better than the instruction in the basal reader. This finding fails to replicate the work of Baumann (1984) and may be explained by the complexity of the strategy. The strategy that the teacher explained is difficult to follow without the graphic aid and guide of the checklist. Trying to keep all the steps straight proved to be difficult as can be seen by the students' poor performance on their daily seatwork. The strategy without the checklist proved to be most difficult for the below average readers, especially when asked to construct their own main idea statements.

The results of the study also demonstrate that students can explain the use and value of a strategy without being able to implement it well. The results showed that the students in the Alternate Strategy Group knew what they were learning and why it was important, but were unsuccessful in implementing the procedures. Students' verbal reports about their performance did not, in this case, correspond to their actual performance.

The results suggest that checklists of this type can be a valuable aid in teaching comprehension strategies. The checklist helped crystalize the procedure for the students and promoted independent application of the skill. The checklist stressed both the use of prior knowledge and the inspection of text clues. At this time it is impossible to say which is more important or if both are necessary. Further research is needed to explore the relative importance of prior knowledge and text clues in locating or inventing the main idea.

Figure 1

SELF-MONITORING CHECKLIST

Finding the Main Idea

NAME: _____

STEPS:

1. Read the title. What information does it give you about the paragraph or passage which you are about to read? Write your ideas down.
2. Ask yourself: "What do I already know about this topic, idea, concept, etc.?" Write your ideas down.
3. Read the paragraph or passage.
4. Are there any other textual clues that will help you find the main idea? Underline these clues and write them down.
5. Write what you think the main idea or most important idea of the story is.
6. Now you will check your responses to see how you know that it is the main idea.

---

1. Title: _____

   Information or ideas I gained from the title: _____

   _____

2. What I already know about this topic, idea, concept, etc.: _____

   _____

3. Read the paragraph or passage.
4. Any textual clues which provided me with more information about the main idea: _____

   _____

5. What I think is the most important or main idea of what I just read: _____

   _____

   Can you list at least three supporting details which you recall from your reading of this passage or paragraph: _____

   _____

6. Now I will check my response:

   a. Did the author state that in the first sentence or beginning of the paragraph?

      Yes _____ No _____

   b. Did the author state that in the last sentence or end of the paragraph?

      Yes _____ No _____

   c. If not, did you find it IN the paragraph? Yes _____. Refer to d now.

   d. I made up or "invented" the main idea based on what I read. Yes _____

Figure 2

Instructional Sequence

Lesson 1: Isolating Important Ideas

Lesson 2: Introduction and Practice Using the Self-monitoring Checklist-Main Idea and Details in Explicit Paragraphs

Lesson 3: Review, Reinforcement and Practice of Lesson 2

Lesson 4: Main Ideas and Details in Implicit Paragraphs

Lesson 5: Review, Reinforcement and Practice of Lesson 4

Lesson 6: Review, Reinforcement and Practice of Lessons 2 and 4

Lesson 7: Main Ideas and Details in Explicit Passages

Lesson 8: Review, Reinforcement and Practice of Lesson 7

Lesson 9: Main Ideas and Details in Implicit Passages

Lesson 10: Review, Reinforcement and Practice of Lesson 9

Lesson 11: Review, Reinforcement and Practice of Lessons 7 and 9

Table 1

Mean Main Idea Recognition and Construction Scores

	Treatment								
	Self-Monitoring Group			Alternate Strategy Group			Control Group		
	Above Ave. Readers (N=12)	Below Ave. Readers (N=5)	Total Readers (N=17)	Above Ave. Readers (N=12)	Below Ave. Readers (N=5)	Total Readers (N=17)	Above Ave. Readers (N=9)	Below Ave. Readers (N=8)	Total Readers (N=17)
Multiple Choice Responses	7.50	4.20	6.53	5.30	3.67	4.97	5.89	4.00	5.50
Constructed Responses	8.08	6.75	7.69	6.67	2.00	5.29	5.56	5.25	5.49

Table 2

Responses to Interview Question 1:
"What did you learn to do during your special reading time?"

Categories	Treatment		
	Self-monitoring Strategy Group (n = 9)	Alternate Strategy Group (n = 11)	Control Group (n = 11)
Identified skill (main idea)	33%	38%	29%
Learned about text structure (paragraphs/ sentences)	25%	75%	0%
Learned how to do reading work	17%	0%	83%
Didn't know	0%	0%	0%

Table 3

Responses to Interview Question 2:
"Why is finding the main idea important?"

Categories	Treatment		
	Self-monitoring Strategy Group (n = 9)	Alternate Strategy Group (n = 11)	Control Group (n = 11)
Importance/Gist	42%	42%	17%
Partial comprehension of reading	27%	33%	40%
Helps with grades	0%	25%	75%
No idea	0%	0%	0%

Table 4

Responses to Interview Question 3:
"When reading a passage how do you find the main idea?"

Categories	Treatment		
	Self-monitoring Strategy Group (n = 9)	Alternate Strategy Group (n = 11)	Control Group (n = 11)
Described a full mental process	41%	53%	6%
Described part of a process	12%	12%	75%
No process	17%	17%	67%

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